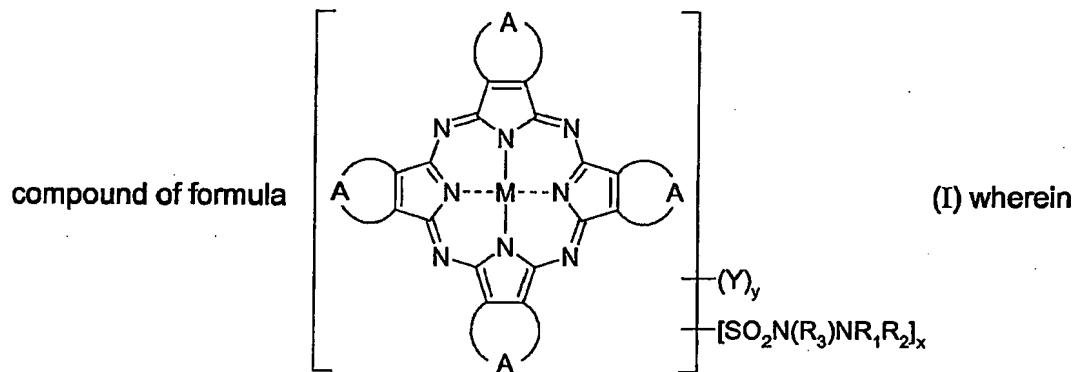


What is claimed is:

1. An optical recording medium comprising a substrate, a recording layer and optionally one or more reflecting layers, wherein the recording layer comprises a



5 M denotes 2 hydrogen atoms or a 2- to 4-valent metal which can optionally be coordinated or bonded to 1 or 2 additional ligands;

each A independently of the others is an unsaturated divalent radical which may be unsubstituted or mono- or poly-substituted by Y and/or by $SO_2N(R_3)NR_1R_2$ and together with the two carbon atoms of the fused-on porphyrazine moiety

10 forms an aromatic homo- or N-hetero-cyclic ring system;

each Y independently of all others is halogen, R_4 , OH , OR_4 , SR_4 , NO_2 , NR_4R_5 , $O-CO-R_4$, NR_4-CO-R_5 , CN , $COOR_4$, $CONHR_4$, $CONR_4R_5$, $CO-R_4$, SO_2R_4 , SO_2NH_2 , SO_2NHR_4 , $SO_2NR_4R_5$, $P(=O)R_4R_5$, $PO(R_4)OR_5$, $PO(OR_4)OR_5$, or $C_1-C_{12}alkyl$, $C_3-C_{12}cycloalkyl$, $C_2-C_{12}alkenyl$ or $C_3-C_{12}cycloalkenyl$ each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_6 , or $C_6-C_{14}aryl$, $C_4-C_{12}heteroaryl$, $C_7-C_{18}aralkyl$ or $C_5-C_{16}heteroaralkyl$ each unsubstituted or substituted by one or more, where applicable identical or different, radicals R_7 ;

15 R_1 is hydrogen, $COOR_4$, $CONHR_4$, $CONR_4R_5$, $CO-R_4$, SO_2R_4 , $P(=O)R_4R_5$, $PO(R_4)OR_5$, $PO(OR_4)OR_5$, or $C_1-C_{12}alkyl$, $C_3-C_{12}cycloalkyl$, $C_2-C_{12}alkenyl$ or $C_3-C_{12}cycloalkenyl$ each unsubstituted or substituted by one or more, where

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applicable identical or different, radicals R₆, or C₆-C₁₄aryl, C₄-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₅-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₇;

R₂ and R₃ are each independently of the other hydrogen or R₈;

- 5 R₄, R₅ and R₈ are each independently of the others C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₆, or C₆-C₁₄aryl, C₄-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₅-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₇;
- 10 R₆ is halogen, hydroxy, O-R₉, O-CO-R₉, S-R₉, CO-R₉, cyano, carboxy, carbamoyl, COO-R₉, CONH-R₉, CONR₉R₁₀, SO₂R₉ or SO₃R₉;
- 15 R₇ is halogen, nitro, cyano, hydroxy, R₁₁, C(R₁₂)=CR₁₃R₁₄, O-CO-R₁₅, formyl, NR₁₅R₁₆, CONH₂, CONHR₁₅, CONR₁₅R₁₆, SO₂R₁₅, SO₂NH₂, SO₂NHR₁₅, SO₂NR₁₅R₁₆, COOH, COOR₁₅, OCOOR₁₅, NHCOR₁₅, NR₁₅COR₁₇, NHCOOR₁₅, NR₁₅COOR₁₇, P(=O)R₁₅R₁₇, P(=O)R₁₅OR₁₇, P(=O)OR₁₅OR₁₇, or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl, C₃-C₁₂cycloalkenyl, C₁-C₁₂alkylthio, C₃-C₁₂cycloalkylthio, C₂-C₁₂alkenylthio, C₃-C₁₂cycloalkenylthio, C₁-C₁₂alkoxy, C₃-C₁₂cycloalkoxy, C₂-C₁₂alkenyloxy or C₃-C₁₂cycloalkenyloxy each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₆;

R₉ and R₁₀ are each independently of the other C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl, C₃-C₁₂cycloalkenyl, C₆-C₁₄aryl, C₄-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₅-C₁₆heteroaralkyl; or

- 25 R₉ and R₁₀ together with the common N are pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl;

R₁₁ is C₆-C₁₄aryl, C₄-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₅-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈;

R₁₂ is hydrogen, cyano, halogen, nitro, or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals, or C₆-C₁₄aryl, C₄-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₅-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₆ and/or by nitro;

10 R₁₃ and R₁₄ are each independently of the other NR₁₅R₁₆, CN, CONH₂, CONHR₁₅, CONR₁₅R₁₆ or COOR₁₆;

R₁₅, R₁₆ and R₁₇ are each independently of the others R₁₁, or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals; or

15 R₁₅ and R₁₆ together with the common N are pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl; or carbazole, phenoxazine or phenothiazine each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₁₈;

20 R₁₈ is nitro, SO₂NHR₉, SO₂NR₉R₁₀, or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₁-C₁₂alkyl-thio, C₃-C₁₂cycloalkylthio, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy each substituted by one or more, where applicable identical or different, radicals R₆; and

x is a number from 1 to 8, preferably from 2 to 4, and y is a number from 0 to 15, the sum x + y being a number from 1 to 16;

25 wherein from 2 to 10 identical or different radicals of formula (I) can be bonded to one another by one or more additional bonds between two or more identical or

different R₁, R₂, R₃ or Y, so that dimers, trimers or oligomers having from 4 to 10 phthalocyanine units are formed.

2. An optical recording medium according to claim 1, wherein in formula (I)

- A is 1,4-butadienylene;
- 5 • M denotes 2 hydrogen atoms, Mg, Al, Si, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Mo, Pd, Sn, Hf, Pt or Pb, optionally coordinated or bonded to 1 or 2 additional ligands, depending upon valency;
- 10 • Y is hydrogen, bromine, iodine, OR₄, NO₂, CN, unsubstituted C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl or C₂-C₁₂alkenyl, or C₆-C₁₀aryl or C₇-C₁₂aralkyl each unsubstituted or substituted by one or more, where applicable identical or different, radicals R₇;
- 15 • R₁ is COOR₄, CONHR₄, CONR₄R₅, CO-R₄, SO₂R₄, or C₆-C₁₀aryl, C₄-C₈hetero-aryl or C₇-C₁₂aralkyl each unsubstituted or substituted by R₇;
- 20 • R₂ and R₃ are each independently of the other hydrogen or R₈;
- 25 • R₄, R₅ and R₈ are each independently of the others C₃-C₈alkyl, C₃-C₈cycloalkyl or C₃-C₈alkenyl each unsubstituted or substituted by R₆, or C₆-C₁₀aryl or C₇-C₁₂aralkyl each unsubstituted or substituted by R₇;
- R₆ is halogen, hydroxy, O-R₉, O-CO-R₉, CO-R₉, cyano or SO₂R₉;
- R₇ is halogen, nitro, cyano, O-CO-R₁₅, NR₁₅R₁₆, CONHR₁₅, CONR₁₅R₁₆, SO₂R₁₅, SO₂NH₂, SO₂NHR₁₅, SO₂NR₁₅R₁₆, COOH, COOR₁₅, NHCOR₁₅, NR₁₅COR₁₇, or unsubstituted or substituted C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy;
- R₉ and R₁₀ are each independently of the other C₁-C₈alkyl, C₃-C₆cycloalkyl, C₂-C₈alkenyl, C₃-C₆cycloalkenyl or phenyl;
- 25 • R₉ and R₁₀ together with the common N are pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl;

- R_{15} , R_{16} and R_{17} are each independently of the others C_1 - C_8 alkyl, C_5 - C_6 cyclo-alkyl, C_2 - C_8 alkenyl or C_5 - C_6 cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy or C_1 - C_4 alkoxy radicals, or phenyl or benzyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, nitro, C_1 - C_8 alkyl or C_1 - C_4 alkoxy radicals;
- R_{15} and R_{16} together with the common N are pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C_1 - C_4 alkyl; and/or

10 • x is a number from 1 to 4, and y is a number from 0 to 4,

- wherein from 2 to 5 identical or different radicals of formula (I) can be bonded to one another by one or more additional bonds between two or more identical or different R_1 , R_2 , R_3 or Y, so that dimers, trimers or oligomers having 4 or 5 phthalocyanine units are formed.

15 3. An optical recording medium according to claim 1 or 2, wherein in formula (I)

- M is $Co(II)$, $Ni(II)$, $Cu(II)$, $Zn(II)$, $Sn(II)$ or $Pb(II)$, especially $Cu(II)$;
- Y is hydrogen, bromine or OR_4 , very especially hydrogen;
- R_1 is $COOR_4$, $CONHR_4$, $CONR_4R_5$, $CO-R_4$, SO_2R_4 , or unsubstituted or substituted phenyl or C_7 - C_{12} aralkyl, very especially $CO-R_4$, SO_2R_4 or unsubstituted or substituted phenyl or C_7 - C_{12} aralkyl;
- R_2 and R_3 are each independently of the other hydrogen or C_1 - C_{12} alkyl;
- R_4 , R_5 and R_8 are each independently of the others C_3 - C_8 alkyl unsubstituted or substituted by R_6 , or phenyl unsubstituted or substituted by R_7 ;
- R_6 is halogen, hydroxy, $O-R_9$, $O-CO-R_9$, $CO-R_9$, cyano or SO_2R_9 ;

- R₇ is halogen, nitro, cyano, O-CO-R₁₅, NR₁₅R₁₆, or C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy each unsubstituted or substituted by R₆;
- R₉ and R₁₀ are each independently of the other C₁-C₄alkyl or phenyl;
- R₉ and R₁₀ together with the common N are piperidine or morpholine each 5 unsubstituted or mono- to tetra-substituted by C₁-C₂alkyl;
- R₁₅, R₁₆ and R₁₇ are each independently of the others C₁-C₄alkyl unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy or C₁-C₄alkoxy radicals; and/or
- R₁₅ and R₁₆ together with the common N are piperidine or morpholine each 10 unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl.

4. An optical recording medium according to claim 1, 2 or 3, wherein the recording layer contains from 1 to 100 % by weight, preferably from 20 to 100 % by weight, especially from 50 to 100 % by weight, of the compound of formula (I) or of a mixture of compounds of formula (I).

15 5. An optical recording medium according to claim 1, 2, 3, 4 or 5, wherein substrate, recording layer, reflector layer and, if present, covering layer are arranged in that order.

6. An optical recording medium according to claim 1, 2, 3, 4 or 5, additionally comprising a covering layer, wherein substrate, reflector layer, recording layer and 20 covering layer are arranged in that order.

7. An optical recording medium according to claim 1, 2, 3 or 4, wherein the recording layer has marks of different lengths, the shortest of which are almost circular and the longest of which are of a length corresponding to approximately four times the width.

8. A method of recording or playing back data, wherein the data on an optical recording medium according to claim 1, 2, 3, 4, 5, 6 or 7 are recorded or played back at a wavelength of from 300 to 500 nm.
9. A method according to claim 8, wherein the recording takes place at a linear speed v of at least $4.8 \text{ m} \cdot \text{s}^{-1}$ and an output P of at most $[v/0.1 \text{ m} \cdot \text{s}^{-1}]^{1/2} \text{ mW}$.
10. Use of a compound of formula (I) according to claim 1, 2 or 3 in the production of an optical recording medium.
11. An optical recording medium comprising a substrate having depressions, a recording layer and optionally one or more reflecting layers, wherein the recording layer has a thickness of from 30 to 80 nm in the depressions and a thickness of from 20 to 70 nm next to the depressions, the difference between the layer thickness in the depressions and the layer thickness next to the depressions being a maximum of 20 nm, preferably a maximum of 10 nm.
12. An optical recording medium according to claim 11, wherein the recording layer comprises a compound of formula (I) according to claim 1, 2 or 3.
13. A method of recording or playing back data, wherein marks of different reflectivity are created or read on an optical recording medium according to claim 11 or 12 using a laser beam.
14. A method according to claim 13, wherein the marks are of lower reflectivity.
15. A method according to claim 13 or 14, wherein the laser beam is directed through the substrate into the depressions of the recording layer.
16. A method according to claim 13, 14 or 15, wherein the laser beam has a wavelength of from 300 to 500 nm.